

Appl. No. 10/596,883
Amtd. Dated March 22, 2010
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method in a radio communications equipment having comprising the steps of:

processing circuitry for processing communications, using processing circuitry, [[of]] traffic with different characteristics wherein the traffic is from at least two information sources [[is]] divided into two or more categories, including a first and a second category for transfer with different characteristics, ~~the method comprising further wherein the traffic with different characteristics is at least voice traffic and user data traffic; and~~

transmitting the traffic for the transfer with different characteristics on physically wholly or partially separated channels.

2. (Previously Presented) The method in a radio communications equipment according to claim 1 wherein the different characteristics of transfer comprises different time scale of power control adjustments.

3. (Previously Presented) The method in a radio communications equipment according to claim 2 wherein there is a difference in time scale between at least two categories that is at least one order of magnitude.

4. (Previously Presented) The method in a radio communications equipment according to claim 1, wherein the first category of communications is transmitted with stationary or quasi-stationary transmission power level.

5. (Previously Presented) The method in a radio communications equipment according to claim 4 wherein the quasi-stationary transmission power level is varying slower than the lowest speed of communications variations of the traffic of the first category.

6. (Previously Presented) The method in a radio communications equipment according to claim 1, wherein the first category of communications is transmitted with channel adaptive data rate control.

7. (Canceled)

8. (Previously Presented) The method in a radio communications equipment according to claim 1, wherein the second category of communications is transmitted with power level adapted to counteract fading.

9. - 12 (Canceled)

13. (Previously Presented) The method in a radio communications equipment according to claim 1, wherein the communications are separated in one-dimensional domain.

14. (Previously Presented) The method in a radio communications equipment according to claim 13, wherein the one-dimensional domain is time domain.

15. (Previously Presented) The method in a radio communications equipment according to claim 13, wherein the one-dimensional domain is frequency domain.

16. (Canceled)

17. (Previously Presented) The method in a radio communications equipment according to claim 1, wherein the communications are separated in two-dimensional domain.

18. (Previously Presented) The method in a radio communications equipment according to claim 17, wherein the two-dimensional domain is time-frequency domain.

19. – 22. (Canceled)

23. (Previously Presented) The method in a radio communications equipment according to claim 1, wherein when applied to different cells of a cellular radio communications system, neighboring cells transmit on channels of separation minimizing interference between the neighboring cells and the differently characterized communications.

24. (Previously Presented) The method in a radio communications equipment according to claim 23, wherein the separation minimizes number of time slots, frequency slots or time-frequency slots of communications with different characteristics in the different cells.

25. (Previously Presented) The method in a radio communications equipment according to claim 23, wherein the separation maximizes signal to interference ratio or carrier to interference ratio of time slots, frequency slots or time-frequency slots, if any, of communications with different characteristics in the different cells.

26. (Currently Amended) ~~A radio~~ Radio communications equipment, of communications with different characteristics, the equipment comprising:

processing circuitry allocating traffic transmissions of the differently characterized communications having different characteristics to physically wholly or partially separated channels, wherein the traffic transmissions with different characteristics are at least voice traffic and user data traffic; and.

27. (Previously Presented) The radio communications equipment according to claim 26, wherein the different characteristics of transfer comprises different time scale of power control adjustments.

28. (Previously Presented) The radio communications equipment according to claim 27, wherein there is a difference in time scale between at least two categories that is at least one order of magnitude.

29. (Previously Presented) The radio communications system according to claim 26, wherein a first category of communications is transmitted with stationary or quasi-stationary transmission power level.

30. (Previously Presented) The radio communications system according to claim 29, wherein the quasi-stationary transmission power level is varying slower than the lowest speed of communications variations of the traffic of the first category.

31. (Previously Presented) The radio communications equipment according to claim 26, wherein the processing circuitry comprising channel adaptive data rate control means controlling transmissions of the first category of communications.

32. (Canceled)

33. (Previously Presented) The method according to claim 26, wherein a second category of communications is transmitted with power level adapted to counter-act fading.

34. – 37.

38. (Previously Presented) The radio communications equipment according to claim 26, comprising the processing circuitry separating communications in one-dimensional domain.

39. (Previously Presented) The radio communications equipment according to claim 38, wherein the one-dimensional domain is time domain.

40. (Previously Presented) The radio communications equipment according to claim 38, wherein the one-dimensional domain is frequency domain.

41. (Canceled)

42. (Previously Presented) The radio communications equipment according to claim 28, comprising the processing circuitry separating communications in two-dimensional domain.

43. (Previously Presented) The radio communications equipment according to claim 42, wherein the two-dimensional domain is time-frequency domain.

44. - 47. (Canceled)

48. (Previously Presented) A cellular radio communications system comprising two or more cells and radio communications equipment according to claim 26, the system comprising processing circuitry allocating traffic of different

characteristics of different cells by which allocation interference between differently characterized communications of neighboring cells is minimized.

49. (Previously Presented) The radio communications system according to claim 48 comprising the processing circuitry minimizing number of time slots, frequency slots or time-frequency slots of communications with different characteristics in the different cells.

50. (Previously Presented) The radio communications system according to claim 48 comprising the processing circuitry maximizing signal to interference ratio or carrier to interference ratio of time slots, frequency slots or time-frequency slots, if any, of communications with different characteristics in the different cells.

51. (Canceled)
